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Revision 2

REQUIREMENTS FOR EVALUATING AND DOCUMENTING WASTE ANALYSIS PLAN COMPLIANCE FOR TESTING BATCH DATA COLLECTED IN ACCORDANCE WITH WASTE CHARACTERIZATION PROGRAMS APPROVED BY THE CARLSBAD FIELD OFFICE PRIOR TO NOVEMBER 26, 1999

JUNE, 2001

U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE

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REVISION 2

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PURPOSE

This document establishes the requirements for transuranic (TRU) waste sites to evaluate and document Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP) Waste Analysis Plan (WAP) compliance for testing batch data collected in accordance with characterization programs that were approved by the Carlsbad Field Office (CBFO) prior to November 26, 1999.

SCOPE

The WIPP HWFP WAP specifies characterization techniques required to confirm acceptable knowledge for waste streams at generator/storage sites. The WAP specifically prohibits the WIPP from accepting waste for storage and disposal that is not characterized in full compliance with the requirements of the WAP. This document establishes the process to be used by generator/storage sites to:

- Evaluate WAP compliance status of real-time radiography (RTR) and visual examination (VE) testing batch data collected in accordance with characterization programs that were approved by CBFO prior to the effective date of the WIPP HWFP
- Document the results of the evaluation
- Determine required actions to correct WAP discrepant data
- Collect new data from videotape (or other video media) review of RTR/VE.

Prior to offering any TRU or TRU mixed-waste container for disposal at the WIPP upon which RTR and/or VE was performed in accordance with characterization programs that were approved by the CBFO prior to November 26,1999, generator/storage sites shall demonstrate that the associated data was collected and validated in compliance with all applicable WAP requirements.

GENERAL

Through cooperative agreement, the US Department of Energy (DOE) CBFO and New Mexico Environment Department (NMED) have identified two acceptable methodologies that may be utilized by generator/storage sites to demonstrate RTR/VE data WAP compliance. Method one specifies six tasks that must be performed to evaluate the compliance status of RTR/VE testing batch data with the WAP. When using method one, each task must be performed and documented by the generator/storage site prior to determining the specific corrective actions necessary to achieve compliance with applicable WAP requirements. Method two allows sites to collect WAP compliant RTR/VE data by performing videotape reviews using WAP trained and qualified operators. Method two requires that the site use WAP compliant procedures that have been subject to CBFO audit.

While performing the tasks outlined in method one, a generator/storage site may determine that it would be preferable to utilize method two. They may then cease all method one activities and initiate method two.

If generator/storage sites utilizing either methods one or two decide to perform RTR/VE characterization techniques approved by NMED and CBFO through the WIPP HWFP attachment B6 audit process, halt the process and notify CBFO that the testing will be performed using the current procedures.

PROCESS

Method One

Prepare a corrective action plan that contains, at a minimum, the following tasks and deliverables:

1. List the specific type of pre-existing testing data to be assessed and identify the container population, by container number, tested prior to the establishment of WIPP HWFP WAP compliant procedures at the generator site. Define the inclusive dates (e.g., April 1, 1997, and November 25, 1999) over which this testing was performed and correlate the container numbers with the procedural revisions used to generate the testing data for those containers. Provide to the site project manager and site project quality assurance officer a listing of the procedural revisions, associated containers, and dates of testing. Include applicable hazardous waste codes and waste matrix code(s) for the containers identified.

   Deliverable: List of containers tested between dates.

2. Using a matrix provided by DOE CBFO, document the procedures and procedural revisions used for testing, data verification and validation, and the training required to implement those procedures. Document the differences between the WAP requirements and the procedures or training used. Include as objective evidence documentation of training and a copy of the procedures and procedural revisions used.

   Deliverable: Completed matrix identifying requirement differences between the WAP and all procedures, procedural revisions, and training used.

3. Evaluate audit reports and corrective action reports, internal corrective action plans, and nonconformance reports to determine any impacts on the testing, operator training, and data verification and validation performed on the containers.

   Deliverable: Written documentation of results of review of audit reports and corrective action reports, internal corrective action plans, and nonconformance reports.

4. Prepare a summary report of WAP compliance status documenting impacts of procedural revisions, operator training and qualification, audit corrective action reports, internal corrective action plans, and nonconformance reports.

Deliverable: Written summary of WAP compliance status submitted to the site project manager and the site project quality assurance officer.

1. Initiate corrective action plans to document tasks required to address non-WAP compliant containers and to identify non-WAP compliant data as unusable until the required corrective actions are completed. The corrective action plans must identify how the testing data that was obtained using different procedure revisions for data generation, validation and verification, and training will be addressed.

   Deliverable: Additional corrective action plan tasks developed and submitted to a "corrective action tracking system."

2. Submit report and objective evidence demonstrating WAP compliance to DOE CBFO.

Deliverable: Submittal of report and objective evidence to DOE CBFO for review and approval using the following general pre-existing testing data report outline:

A. Scope of Reassessment Process: Indicate the specific type of pre-existing testing data to be assessed, the applicable procedures, and the containers assessed using those procedures. Include applicable hazardous waste codes and the waste matrix code(s) for the containers identified. Include the revision number and the effective dates of each procedure examined.

B. Identification of WAP Compliance

1. B6 Checklist Comparison: Using the matrix provided by DOE CBFO, referencing specific WIPP HWFP attachment B6 checklist elements, identify the procedures and attachment B6 checklist elements that are applicable to the testing data being assessed. This process will document up-front WAP compliance analysis on a broad level and identify specific procedures/WAP elements of interest.

2. WAP vs Procedure Comparison: Using the matrix provided by DOE CBFO, identify specific procedural revision numbers and sections that demonstrate compliance to the requirements of the WAP. Clearly indicate compliance status by recording a "yes" or "no" in the appropriate matrix column. All "no" entries should be further explained in the comment section of the matrix and should also be specifically addressed in the pre-existing testing data corrective action plan.

1. Identification of discrepancies and assessment of such discrepancies within a procedure with respect to WAP compliance: Identify procedural revisions and corresponding containers impacted by discrepancies, the impact of each discrepancy on the waste characterization process, and the action needed to resolve each discrepancy to ensure WAP compliance.

C. Reassessment Process: Present the processes used to resolve discrepancies identified in paragraph 6B. This process shall detail specific checklists or forms used to perform the reassessment (i.e., blank forms documenting WAP compliance), as well as the specific reassessment process/procedure (e.g., criteria for acquiring container specific data), problem resolution (e.g., rejecting pre-existing testing data if necessary), and final documentation needs (e.g., individual container documentation required, including deficiencies). The process should also identify and assess any additional changes made as a result of the re-evaluation. This reassessment process shall fully document the reassessment actions to be taken, as it will guide project personnel performing reassessment to ensure that all tasks are completely and accurately accomplished through consistent guidance.

A. Example of Implementation: Include a single example (e.g., testing batch data report) of the reassessment process, showing how successful reassessment is achieved.

Method Two

If a generator/storage site determines that the effort required to qualify pre-existing data to the requirements specified in method one is not justified, the site may use the pre-existing VE and RTR videotapes to generate new testing batch data reports using WIPP WAP compliant procedures. A corrective action report (CAR) shall be initiated that addresses the following minimum information:

- type of pre-existing testing data to be assessed
- procedure or procedural revision(s) used to collect original testing batch data
- containers to be assessed

The CAR can satisfy the minimum information required by providing traceability to the data. Assessment will be performed using the applicable steps of the current procedures, as required, to complete the new testing batch data reports. Pre-existing data shall only be assessed by generator/storage sites whose procedures were subjected to audit by CBFO, and after the final audit report has been approved by NMED. The generator/storage site shall provide an example of implementation to CBFO. CBFO shall forward the example to the NMED.

Limitations

- It is recommended that the batch structure used to generate the original RTR and VE data is maintained. This greatly simplifies the maintenance of videotape identity, correlation of independent replicate scans (RTR) to particular batches, and independence of operators versus independent technical reviewers.

- Qualified operators must review RTR and VE tapes. The qualification and training program for these operators must have been subject to CBFO audit and submitted to NMED in a final audit report.

- RTR and VE data must be recorded on the data forms included in the approved WIPP WAP compliant procedures. There must be an individual data form for each container in the testing batch data report.

- Testing batches can consist of no more than 20 containers examined using the same testing equipment (i.e., if a site has more than one RTR or VE facility, containers from different facilities cannot be included in the same testing batch data report).

- The WIPP WAP frequency requirements for independent observations, and independent replicate scans (RTR) must be met (once per testing batch or once per day, whichever is less frequent). The same independent replicate scan cannot be used on multiple testing batch data reports. If the original batch structure used to obtain the original data is not maintained, this may result in RTR batches that have no corresponding independent replicate scan.

- All testing data (videotapes and data forms) shall be subjected to verification and validation using WIPP WAP compliant procedures.

- The WIPP WAP requirements for independence of the independent technical reviewer must be maintained throughout the process (i.e., the independent technical reviewer cannot have performed the original scan or generation of the new testing batch data).

- CAR's/NCR's associated with the containers and original batch reports must be included in the new testing batch data report. Documentation that the CAR's/NCR's have been reviewed for conformance (including disposition and closure documentation) with the requirements of the WIPP WAP will be included in the site quality assurance officer data validation checklist. Additional CAR's/NCR's may be generated during review of the videotapes. Resolution of these additional CAR's/NCR's shall be included in the new testing batch data report.